

REMARKS

Claims 1-13 are pending in the subject application. No claims have been indicated to be allowable.

Applicants wish to thank Examiner Nguyen for the personal interview held at the USPTO on September 21, 2005 with Applicants' attorney, Beverly J. Artale, Esq. any inventor, Micheal Ziebarth. During the interview Applicant outlined the FCC process and noted typical sulfur containing fractions, including H₂S and liquid products components, produced during the FCC process. Applicants argued that the Myers reference failed to teach reducing the sulfur content of **liquid products** produced during the FCC process. Applicants further pointed out that the Myers reference failed to teach or in any way discuss applicants' process reducing the sulfur content of the liquid products by introducing **at least one metal compound wherein the metal consists essentially of vanadium to selectively increase the amount of vanadium** in the FCC feedstock during an FCC process.

35 USC 102(b)

Claims 1-13 stand rejected under 35 USC 102(b) as being clearly anticipated by Myers (U.S. Patent 4,728,416). This rejection is respectfully traversed.

Applicants' invention, as now claimed, recites a process for reducing the sulfur content of **liquid products**, including gasoline and middle distillate cracking products, obtained during an FCC process. In accordance with the process of the invention at least one metal compound wherein the metal consists essentially of vanadium is added to a liquid hydrocarbon feedstock **to selectively increase** the concentration of vanadium in the feedstock. The vanadium-enriched feedstock is thereafter charged into a FCC unit operating under steady state conditions to contact a FCC cracking catalyst *in situ* with a high concentration of vanadium, expressed as elemental vanadium.

Myers discloses an improved process for obtaining catalytically cracked a gas oil feed to obtain naphtha products of improved octane number. The process comprises introducing a sufficient amount of a **nickel and vanadium metals-containing heavy feedstock** with the gas oil feed into the cracking zone of an FCCU to raise the content of **BOTH** nickel and vanadium metals on the catalyst. See Col. 3,

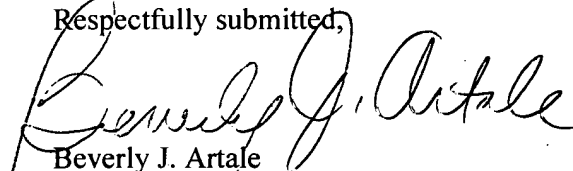
lines 25-26. Clearly, Myers fails to disclose or in any way teach adding a compound **consisting essentially of at least one vanadium compound** to the feedstock.

Further, contrary to the Examiner's allegation, the Myers reference is silent with respect to sulfur reduction of **liquid products** produced during an FCC process. The Examiner has alleged that it is well known in a cracking process some organosulfur compound would be decamped to produce hydrogen sulfide in the cracking process. The Examiner goes further to make a **totally unsupported statement** that it would be inherent that the liquid products would have a reduced sulfur content. As pointed out to the Examiner during the interview, a typical FCC process will produce both H₂S gas and liquid sulfur containing products. Applicants have however discovered that the presence of a high content of vanadium in the feed during the catalytic cracking process, **unexpectedly** shifts the content of sulfur present in liquid products to a lower content, thereby, producing a liquid product having a reduced sulfur content as compared to liquid products produced during a conventional FCC process.

Consequently, Myers fails to anticipate Applicants' invention as now claimed by failing to teach each and every element thereof. Accordingly, this rejection is improper and should now be withdrawn.

For reasons as stated herein above, Applicants' invention is patentable over the prior art of record. Allowance of claims 1-13 of the subject application is therefore requested.

Respectfully submitted,



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